

DATA AUDIT STRATEGY

Department of Transportation

DELPHI Program



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Introduction

Purpose

The purpose of this document is to define a strategy for the identification, selection, cleanup, and quality review of the data to be converted from the MIR and DAFIS databases to the new DELPHI system.

Scope

This document defines the strategy for the DELPHI Program by addressing the following areas:

- **Definition of Data Sampling Criteria** - The identification and categorization of data from the MIR and DAFIS databases.
- **Business Object Selection Criteria** - The criteria used for selecting which business objects need to be converted to DELPHI.
- **Data Clean-up Process** - The sanitation of the data in the MIR or DAFIS databases prior to executing the conversion process.
- **Data Object Quality Analysis** - The validation and verification that the data that was converted is correct and complete.

Related Documents

1. Data Conversion Strategy for the DELPHI Program
2. Data Conversion Standards for the DELPHI Program

Define Data Sampling Criteria

To assist in the definition of what data to convert from MIR and DAFIS to DELPHI, it is helpful to classify the data into different categories. Examples of some categories are:

Reference Data - This type of data is used to supplement transactions with descriptive information for tracking purposes. For example, Vendor or Customer Codes.

Document Data - This type of data is used to track open documents that are stored in the system. For example, open commitments, obligations, and receivables.

Transaction Data - This type of data is used to maintain the detail record of business activity. For example, open commitments, obligations, receivables, as well as general ledger balances.

Historical Data - This type of data is used to track data that has been posted in the system and that a record of this data is needed for audit and reporting purposes.

Based on the category of data, the following example should be used to list the different objects which relate to the category. This example lists the application name, business object, and file name. The business object in this context is a business grouping of data that may map to one or more forms or tables. Examples of business objects are customers, vendors, invoices, items, and so on.

DAFIS Application	Business Object	File Name
DAFIS	GL Beginning Balances	General Ledger File
DAFIS	GL Transaction History	Batch Control File
DAFIS	AP Vendors	Vendor Master Table
DAFIS	AP Open Documents	Open Document File
DAFIS	AP Closed Documents	MIR Data Warehouse Batch Control File Open Document File
DAFIS	AR Customers	
DAFIS	AR Open Documents	MIR Data Warehouse Batch Control File Open Document File
DAFIS	AR Closed Documents	MIR Data Warehouse Batch Control File Open Document File
DAFIS	Budget (Appropriations, Allotments, etc.)	Batch Control File Allotment Control File

Business Object Selection Criteria

Based on the items contained in the prior step, the selection criteria for each of the business objects that are being converted should be listed. The selection of the records to convert may depend on one of several factors. One factor could be the policy that DOT is going to convert General Ledger Transaction History that is no more than five years old. Another factor could be that DOT is going to convert Accounts Receivable Customers that are currently active in DAFIS. Following is a sample list of selection criteria.

Selection Criteria:

- Historical/Active Periods
- Date Ranges
- Active/Obsolete
- Acquired/Dissolved/Sold-off
- Number of Periods

Business Object	Selection Criteria
General Ledger Beginning Balances	Current Year +5 Years
Accounts Payable Vendors	Active Vendors
Accounts Payable Documents	Open Documents
Accounts Payable Documents	Closed Documents, Current Year + 5 Years
Accounts Receivable Customers	Active Customers
Accounts Receivable Documents	Open Documents
Accounts Receivable Documents	Closed Documents, Current Year + 5 Years

Data Clean-up Process

Following the identification and selection of the data to be converted, some data clean-up may be required. This clean-up will occur as a pre-conversion activity because it is usually easier and more cost effective to perform the data clean-up in MIR and DAFIS prior to conversion due to number of experienced personnel, both functional and technical, currently using the DAFIS system. An example of required cleansing is a customer entered multiple times in different ways, such as using all capitals, mixed case, abbreviations, and so on.

Specific business objects that are candidates for data clean-up include the following:

- Vendors
- Customers
- General Ledger Transaction History
- Accounts Payable Open and Closed Documents
- Accounts Receivable Open and Closed Documents

Data Object Quality Analysis

After the completion of the data conversion, a qualitative analysis of the converted data should be performed. This analysis will consist of the following components:

Validation of Completeness - All of the data converted to DELPHI must be capable of being reconciled back to DAFIS. This reconciliation can consist of matching the balances between the two systems for the General Ledger Beginning Balances or verifying that the same Accounts Payable Vendor records are in both environments.

Data Integrity Verification – Data converted to DELPHI must be populated to the appropriate rows and columns. This verification can consist of examining that the dollar amounts are moved to the appropriate column as well as dates are converted to the Oracle date format.

Business Rules Testing – Data must meet the business rules for the new DELPHI system. This can be determined by exercising the software with the converted data.